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THREE NEW SPECIES OF INDO-PACIFIC COLPURINI (HEMIPTERA: HETEROPTERA: COREIDAE)

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Abstract.—*Hygia* (*Trichocolpura*) *blotei* NEW SPECIES, from Sumatra, and *Sciophyrus striatus* NEW SPECIES and *Sciophyrus trifurcatus* NEW SPECIES, from New Guinea, are described in the tribe Colpurini (Coreidae). Dorsal view illustrations and drawings of the male and female genitalia are provided.

Key Words.—Insecta, Hemiptera, Heteroptera, Coreidae, Sumatra, New Guinea

The Sumatran and New Guinean fauna of the tribe Colpurini (Coreidae) is very large and diverse. For the most part it consists of species adapted to forest edge and forest habitats although there has been radiation into many other ecological niches. These are usually black or dark colored insects and one of the striking features of the group is the great diversity in male genital capsule and female genital plates. Unfortunately, we know very little about the habits of these insects and nothing of the possible adaptive significance of the variety of male and female external genitalic shapes in a group that is otherwise quite similar. Three new species are described here as part of ongoing studies relating to the Indo-Pacific Colpurini.

The following abbreviations are used for the institutions where the types are deposited: Bernice P. Bishop Museum, Honolulu, Hawaii (BPBM); British Museum (Natural History), London (BMNH); Coleccion Entomologica del Instituto de Biologia Universidad Nacional Autonoma de Mexico (IBUNAM); Rijksmuseum Van Naturlijke Histoire, Leiden, Netherlands (RNHL).

HYGIA (*TRICHOCOLPURA*) *BLOTEI* BRAILOVSKY, NEW SPECIES
(Fig. 1)

Type.—Holotype: male; data: SUMATRA. Col. Muller (deposited RNHL).

Description.—*Male* (holotype): Body medium sized, oblong, conspicuously hairy, with surface dull, not shining. *Head:* Subquadrate, rather elongate, dorsally convex; tylus and juga prominent, unarmed; preocellar pits deep; side of head in front of eye subparallel; vertex much wider than dorsal width of one eye; postocular tubercles strongly prominent; antenniferous tubercles relatively large, unarmed; antennae slender, segment I curved, II–III terete and IV fusiform; bucculae rounded with short teeth near anterior half; rostral segments I–III long (segment IV missing). *Pronotum:* Trapeziform, declivent, wider than long; collar distinct; anterolateral angles broadly rounded, not prominent; lateral margins weakly concave to sinuate; humeral angles rounded, only very slightly produced laterally; callar region transversely convex, entire. *Scutellum:* Triangular, flat, with apex acute. *Legs:* Fore and middle femora unarmed; posterior femora armed with a small tooth distally on ventral surface; tibiae with dorsal sulci wholly obsolete. *Abdomen:* Abdominal sterna III–VI shallowly sulcate along midline. Male genital capsule conspicuously concave on posterior margin with lateral angles extended into short winglike processes (Fig. 4). Erect and suberect bristlelike pubescence on head, antennae, rostrum, pronotum, scutellum, pleura, thoracic and abdominal sterna, clavi, coria, laterotergites and exposed parts of genital segments. Circular grey-white, farinose punctures on head, pronotum, scutellum, pleura, ab-

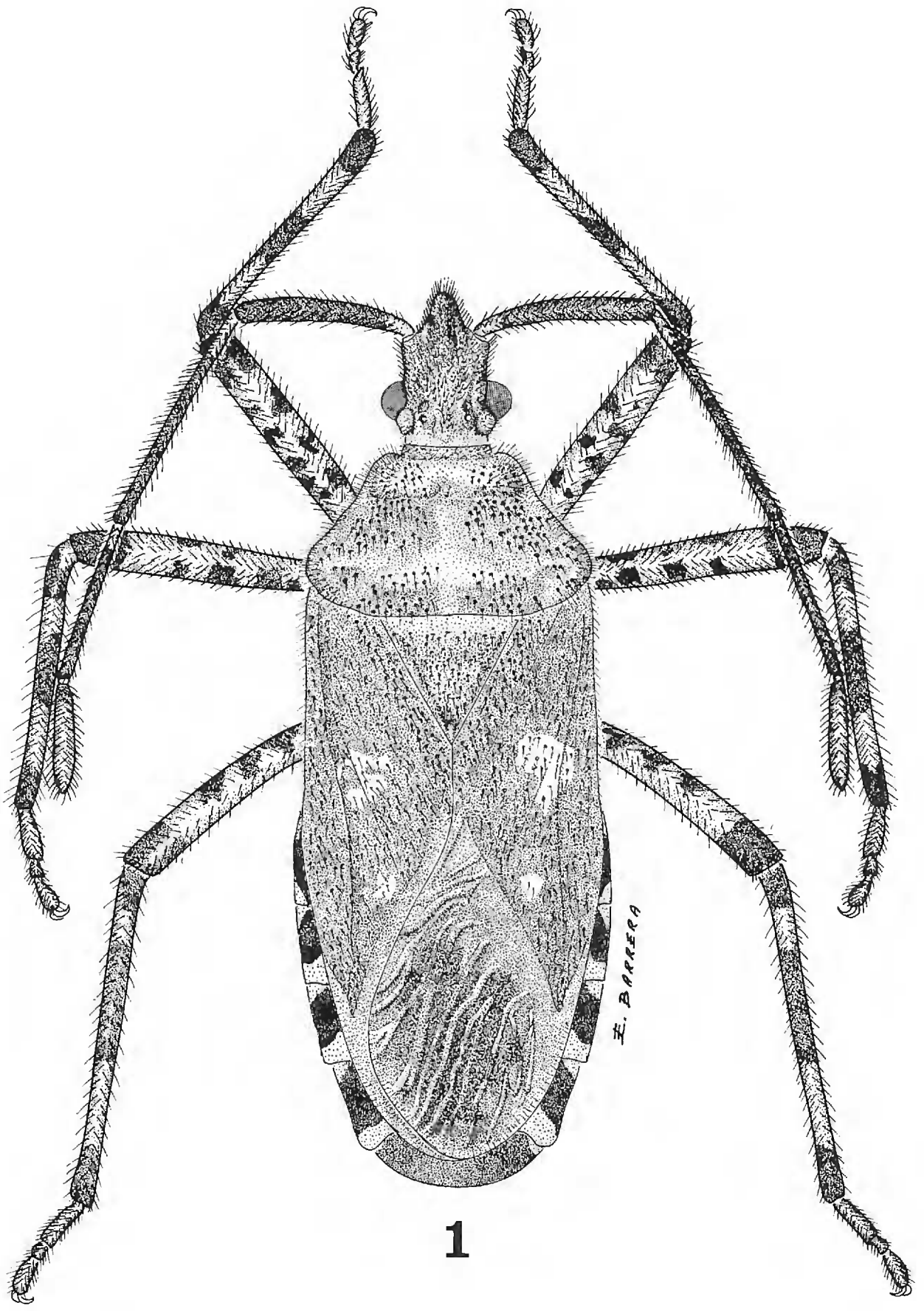
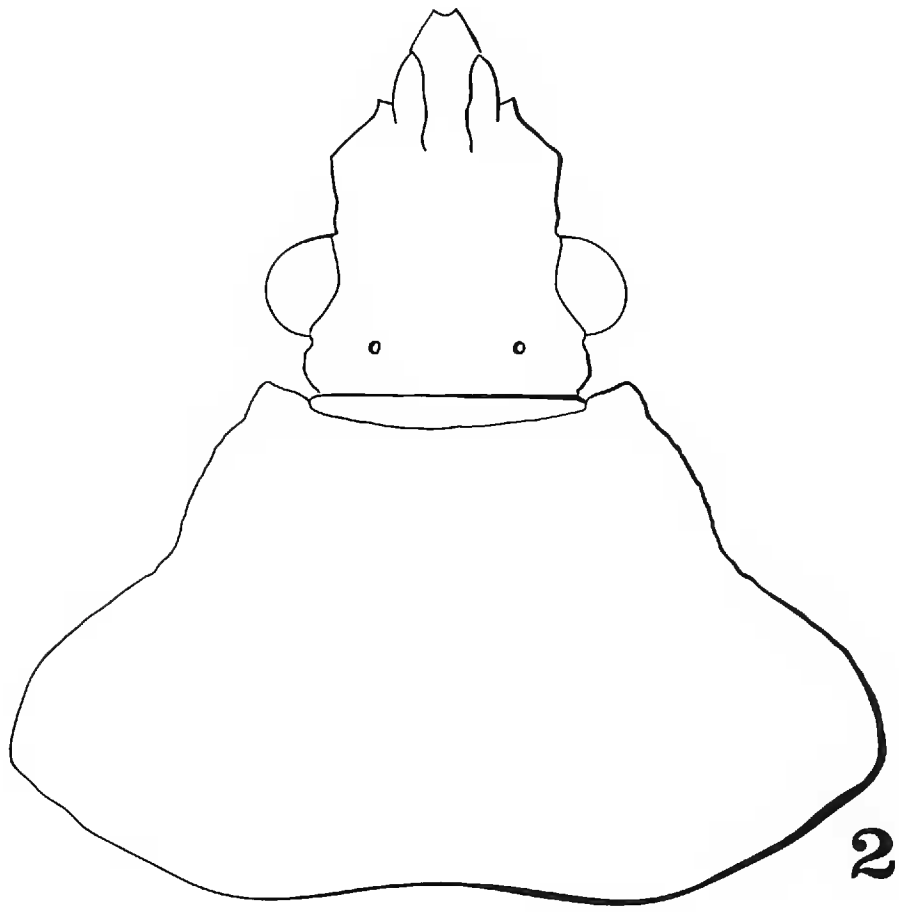
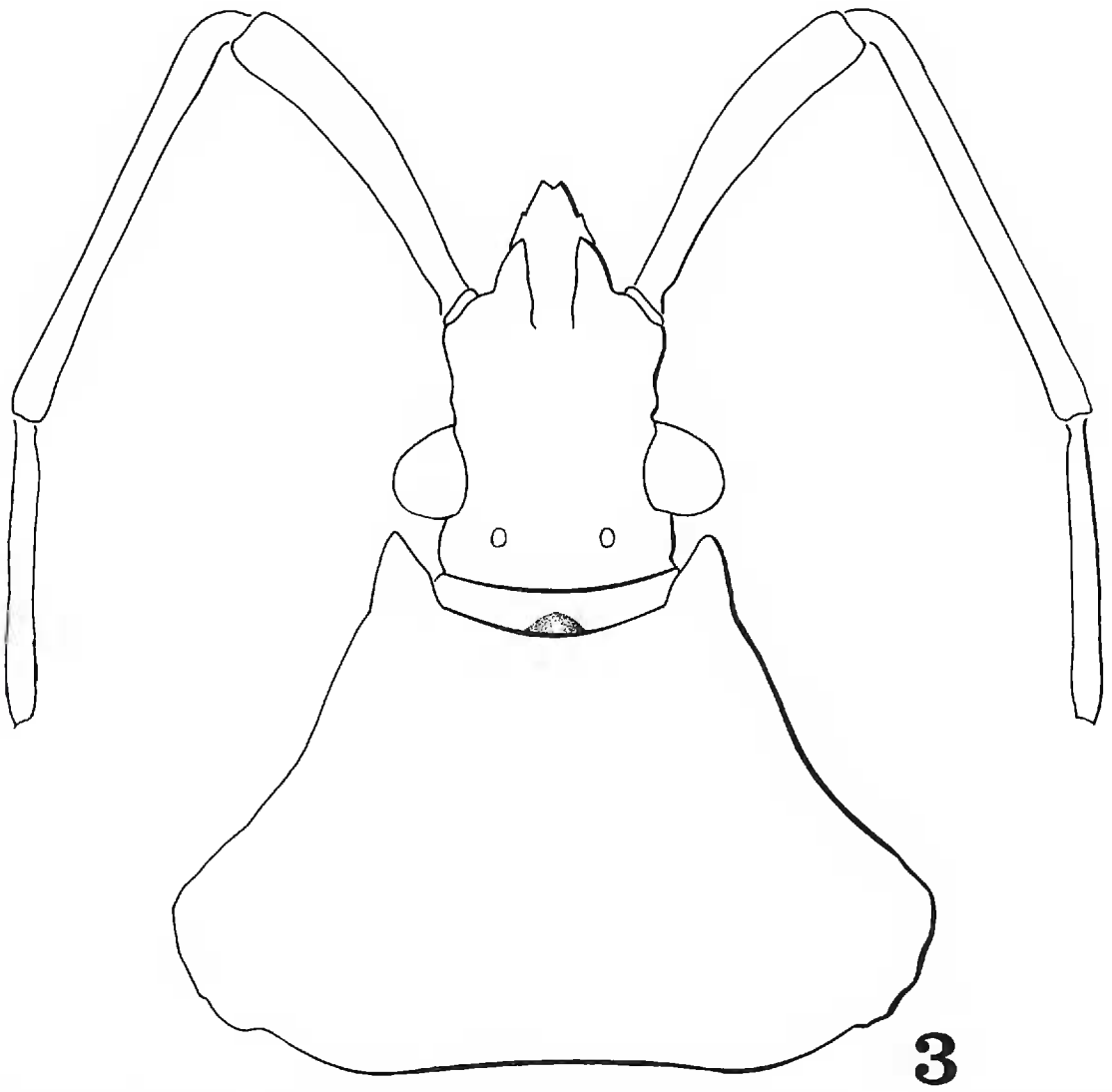


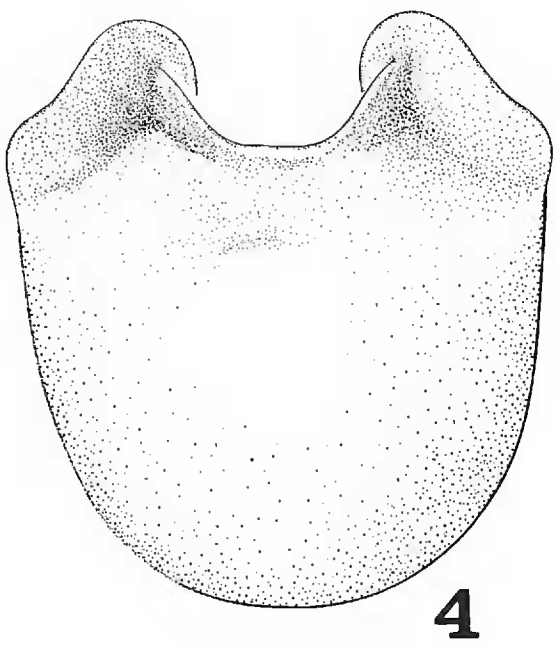
Figure 1. Dorsal view of *Hygia* (*Trichocolpura*) *blotei* Brailovsky new species.

dominal sterna, clavi and coria. *Coloration:* Dark brown; clavus and corium redder than rest of body; antennal segment I dark brown; segments II–III dark brown with bases yellow; IV creamy white with base dark brown; dorsal aspect of postocular tubercle, anterior half of bucculae, rostrum, apex of scutellum and a spot on corium near to middle of distal margin yellow; pronotum with posterior margin and a short longitudinal stripe on middle dirty yellow; hemelytral membrane dirty yellow with veins dark brown; posterolateral angles of metathorax with a yellow spot; each lateroterguite of sternal segments III to VII with a yellow spot at the anterolateral and posterolateral angles; coxae dark brown; trochanters yellow; femora yellow, with apical third, three or four incomplete rings, and few scattered spots dark brown; tibiae dark brown with two large yellow rings; tarsi dark brown-red with diffuse yellow markings. *Measurements:* Head length: 1.88 mm; interocellar space: 0.47 mm; interocular





Figures 2, 3. Head and pronotum in dorsal view. Figure 2. *Sciophyrus rugulosus* Blöte. Figure 3. *Sciophyrus striatus* Brailovsky new species.



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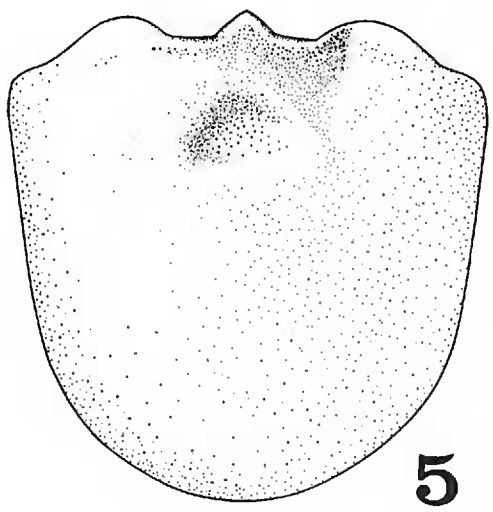

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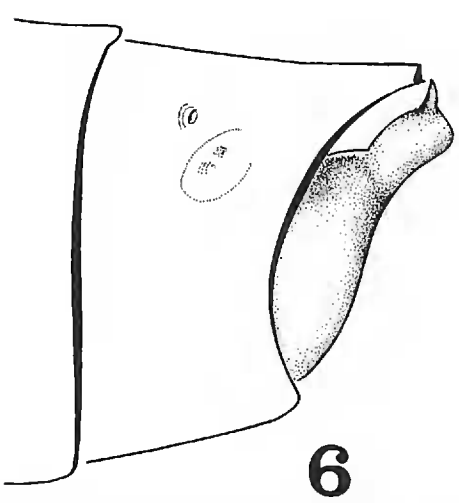

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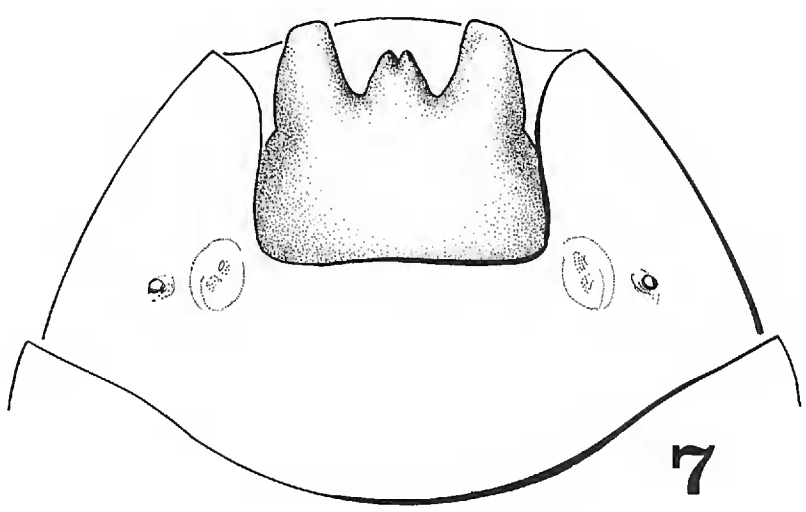

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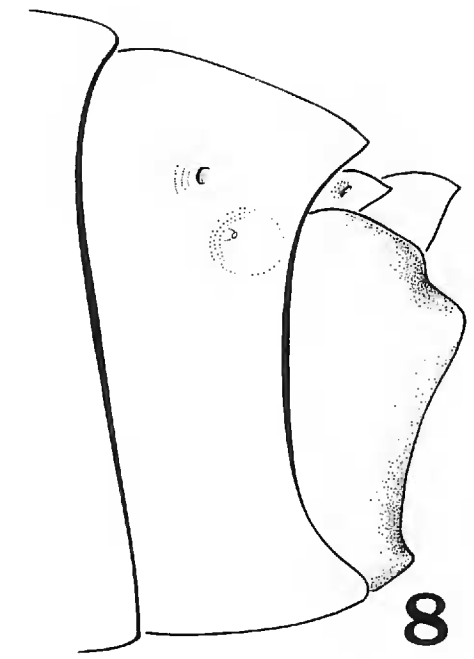
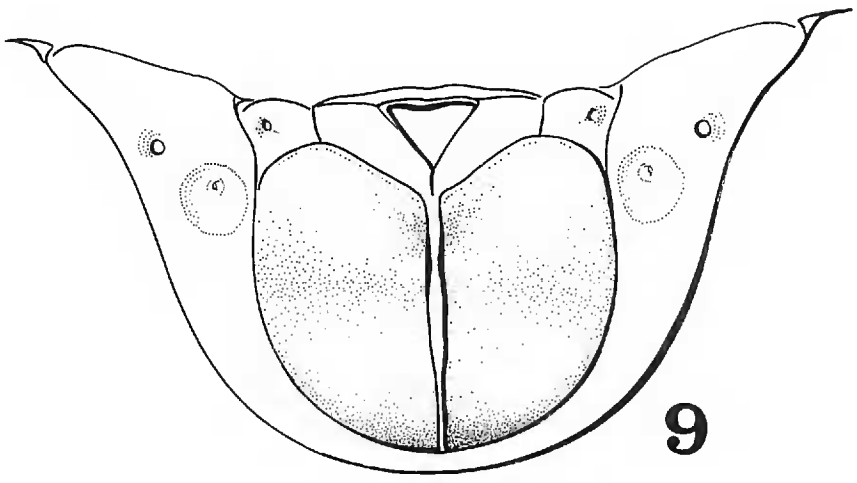
Figures 4–7. Figures 4, 5. Frontal view of the male genital capsule of *Hygia* (*Trichocolpura*) spp. Figure 4. *H.* (*T.*) *blotei* Brailovsky new species. Figure 5. *H.* (*T.*) *schultheissi* (Breddin). Figures 6, 7. Male genital capsule of *Sciophyrus trifurcatus* Brailovsky new species. Figure 6. Lateral view. Figure 7. Frontal view.

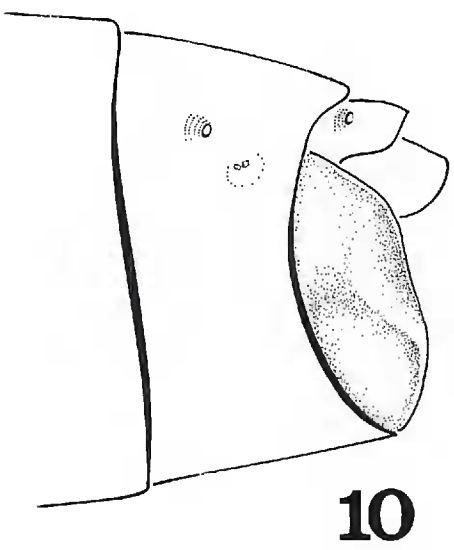
space: 1.00 mm; width across eyes: 1.64 mm; length antennal segments: I, 2.16 mm; II, 3.12 mm; III, 1.84 mm; IV, 1.86 mm. Pronotal length: 2.04 mm; width across frontal angles: 1.32 mm; width across humeral angles: 3.60 mm. Scutellar length: 1.68 mm; width: 1.60 mm. Total body length: 11.23 mm.

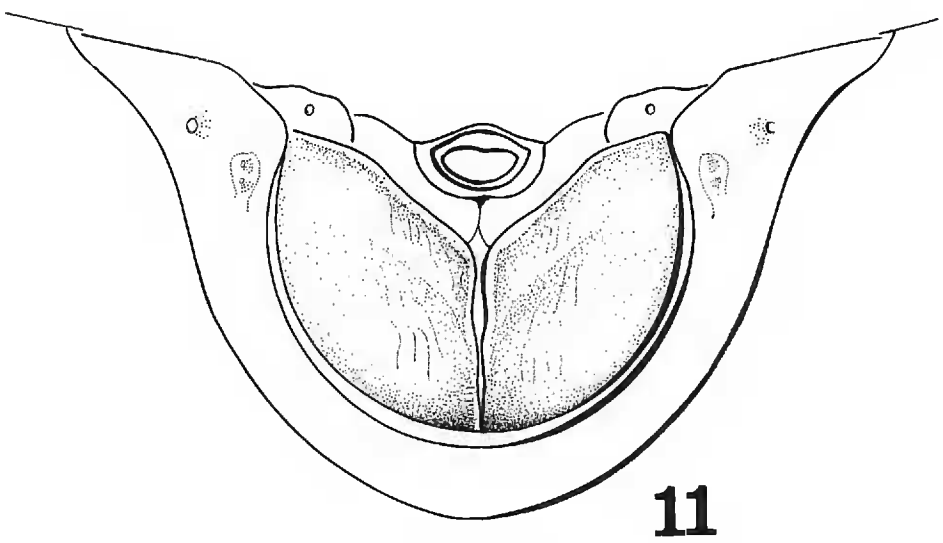
Female.—Unknown.

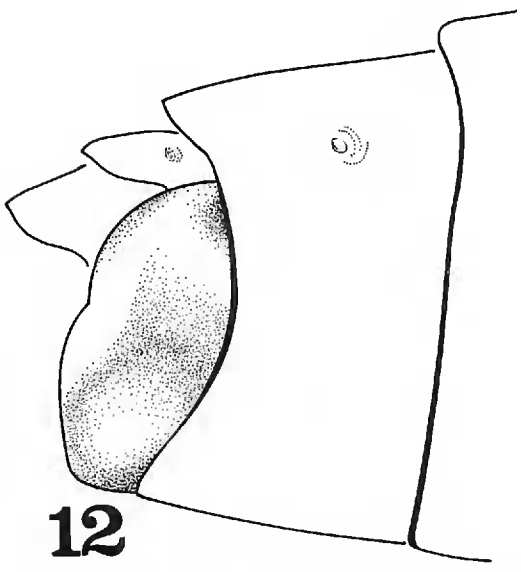
Diagnosis.—This handsome species is similar in color and general habitus to *H.* (*T.*) *schultheissi* Breddin, but differs in having: a bicolorous bucculae, the anterolateral angles of the sternal segments III to VII yellow, the body more robust, the pronotum larger and wider, and rostral segment II shorter. In *H.* (*T.*) *schultheissi* the bucculae are unicolorous and the anterolateral angles of sternal segments III to VII dark brown. Also in *H.* (*T.*) *blotei,* the posterior margin of the male genital capsule is conspicuously concave and the lateral angles are extended into short winglike processes (Fig. 4), whereas in *H.* (*T.*) *schultheissi* the genital capsule has a short median projection and lacks lateral processes (Fig. 5). The only other species included in this subgenus *H.* (*T.*) *cliens* Dolling, has all the femora armed with two rows of ventral teeth and the posterior margin of male genital capsule entire (Maschwitz et al. 1987). On the previous two species the femora are unarmed or have only small teeth on the posterior femora.

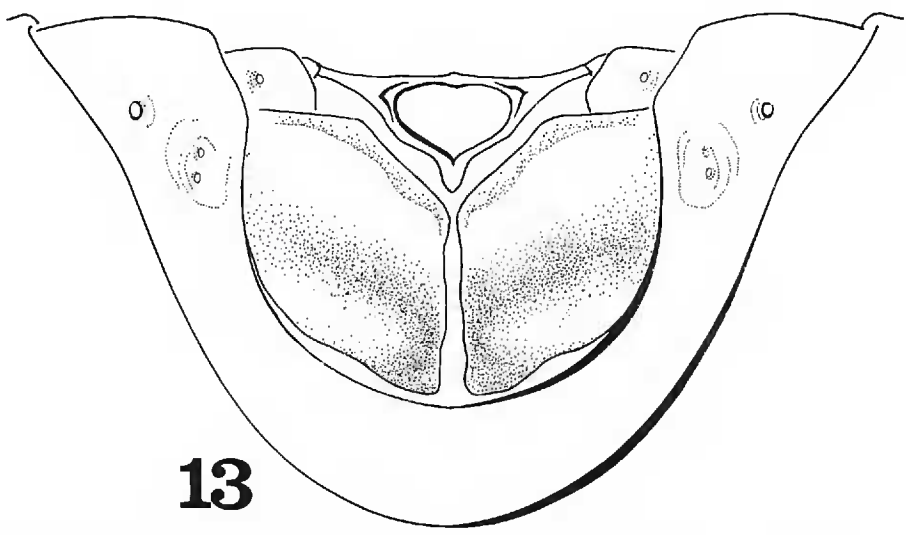












Figures 8–13. Female genital plates of *Sciophyrus* spp. Figures 8, 9. *S. rugulosus* Blöte. Figure 8. Lateral view. Figure 9. Frontal view. Figures 10, 11. *S. striatus* Brailovsky new species. Figure 10. Lateral view. Figure 11. Frontal view. Figures 12, 13. *S. trifurcatus* Brailovsky new species. Figure 12. Lateral view. Figure 13. Frontal view.

Remarks.—The only known specimen of this new species was previously identified by the late H. C. Blöte (1936:43) as *Hygia* (*Trichocolpura*) *schultheissi.*

Etymology.—Named for the late H. C. Blöte, in recognition of his many fundamental contributions to hemipteran systematics.

Sciophyrus striatus Brailovsky, new species
(Fig. 14)

Types.—Holotype: female; data: NEW GUINEA (NE). 13 km SE of Okapa (1650–1870 m), 26 Aug 1964, J. & M. Sedlacek (deposited BPBM). Paratype: 1 female; data: NEW GUINEA (NE). Okapa Purosa (1700–2000 m), 18 Jan 1966, J. Sedlacek (deposited IBUNAM).

Description.—*Female* (holotype): Medium size, relatively robust. *Head:* Eyes small, prominent; ocelli small placed beneath eyes, at level of middle third of posterior tubercle; preocellar pits deep; tylus and genae without prominent teeth; antenniferous tubercles unarmed; rostrum reaching middle of sternal segment V and with rostral segment I reaching anterior margin of prosternum. *Pronotum:* Middle and posterior lobule, abruptly striate and irregularly punctate, the punctures of large diameter; anterior lobule with small diameter punctures never connected by transversely striations; frontal angles produced forward as conical teeth; anterolateral border obliquely straight; humeral angles rounded, not exposed, in lateral view feebly convex; posterolateral border obliquely straight; posterior border straight (Fig. 3). *Legs:* All femora with two rows of small subdistal teeth; tibiae terete, sulcate and unarmed. *Scutellum:* Triangular, conspicuously striate, with few punctures; apex large and acute. *Hemelytra:* Submacropterous, reaching anterior margin of abdominal segment VI; clavus and corium not clearly differentiated, their surfaces with medium or large punctures, arranged in rows without transverse striation; membrane well developed. *Genital plates:* Relatively short, with an antero-posterior oblique direction and with the external face entire, feebly convex (Figs. 10–11). *Dorsal coloration:* Bright brown-red, with following areas bright yellow-ochre: a short longitudinal band running between eye and ocelli up to the posterior border of neck, irregular spots on middle third of the pronotal disc and apex of scutellum; antennal segment I dark orange-red, segments II and III pale orange red with base of segment III pale yellow (segment IV absent); hemelytral membrane pale brown with veins slightly obscured; abdominal terga I to V pale orange-red, VI to VII dark orange-red. *Ventral coloration:* Bright brown-red with following areas bright yellow-ochre: a small spot located near ventral area of eye, a larger spot expanded on mesopleura and metapleura and a small series of spots scattered on prothorax and abdominal sterna III to VII; rostral segments orange hazel; coxae, trochanters and femora bright red, only posterior femora with a yellow ring; tibiae pale orange with two somewhat diffused yellow rings; tarsi pale orange; anterior lobule of the metathoracic scent gland red, the posterior lobule black with apex bright red; genital plates dark brown-red. *Measurements:* Head length: 2.08 mm; interocellar space: 0.64 mm; interocular space: 1.04 mm; width across eyes: 1.88 mm; length antennal segments: I, 2.16 mm; II, 2.72 mm; III, 1.80 mm; IV, absent. Pronotal length: 2.36 mm; width across frontal angles: 1.76 mm; width across humeral angles: 4.12 mm. Scutellar length: 2.40 mm; width: 1.88 mm. Total body length: 13.90 mm.

Male.—Unknown.

Diagnosis.—Like *S. rugulosus* Blöte, this is a submacropterous species, with the hemelytra not extending beyond the anterior margin of the abdominal segment VI. In *S. striatus,* the frontal angles of the pronotum are produced forward as large and conical teeth, the humeral angles are entirely bright brown-red and the genital plates of the female are shorter, oblique, with an antero-posterior direction and with the external face entire and feebly convex (Figs. 3, 10–11). In *S. rugulosus* the frontal angles of the pronotum are shorter, the humeral angles bright brown-red with the external margin yellow-ochre and the genital plates are conspicuously enlarged dorso-ventrally and in lateral view the external face has two convexities (Figs. 2, 8–9).

Figures 14, 15. Dorsal view of *Sciophyrus* spp. Figure 14. *S. striatus* Brailovsky new species. Figure 15. *S. trifurcatus* Brailovsky new species.

Etymology.—The taxon name is based in the remarkable transversal striation of the pronotal disc.

Sciophyrus trifurcatus Brailovsky, new species (Fig. 15)

Types.—Holotype: male; data: NEW GUINEA. Mt. Missim (2100 m), 15 Mar 1968, P. Colman (deposited: BPBM). Paratypes: 3 males, 1 female; data: NEW GUINEA. Mt. Missim (1500–2000 m), 15–21 Apr 1968, J. Sedlacek, 1 male (deposited BPBM); (NE) Wau Morobe District (2500 m), 28 Dec 1961, J. & M. Sedlacek, G. Monteith and native, 1 male (deposited BPBM); (NE) Wau Edie Ck (2000–2150 m), 6 Apr 1965, J. & M. Sedlacek, 1 male (deposited IBUNAM); Neth. Ind. Amer. New Guinea Exp. Lower Mist Camp (1400 m), 2 Feb 1939, L. J. Toxopeus, 1 female (deposited RNHL).

Description.—*Male* (holotype): Large, elongate. *Head:* Eyes small, prominent; ocelli with large diameter and based on an hypothetic line, the superior margin hardly in contact with eyes; tylus and genae without prominent teeth; antenniferous tubercles unarmed; rostrum reaching posterior border of sternal segment V, rostral segment I reaching anterior margin of prosternum. *Pronotum:* Surface densely punctate, inconspicuously striate transversely; frontal angles produced forward as a large, conical tooth; anterolateral border not emarginate, obliquely straight; humeral angles rounded, not exposed, in lateral view feebly convex; posterolateral border sinuate; posterior border straight. *Legs:* All femora with dorsal surface smooth, ventrally armed, with two rows of small subdistal teeth; tibiae terete, sulcate, unarmed. *Scutellum:* Triangular, flat, with large, acute apex. *Hemelytra:* Macropterous, reaching posterior margin of the abdominal segment VII; apical endocorium with few scattered punc-

tures. *Abdomen:* Male genital capsule with posterior margin trifurcated, lateral arms large, robust, apically bifurcated, central arm short and bifid (Figs. 6, 7). *Dorsal coloration:* Head brown-red, tylus orange-brown; punctures, rugosities and postocular tubercles black; space from between eye and ocellus up to posterior border of neck yellow; antennal segments I to III dark orange to red, base of segment III pale yellow; segment IV pale yellow with base orange to red; pronotum, scutellum, clavus and corium bright orange hazel, with the following areas yellow-ochre: apex of scutellum, and few scattered spots on anterior and middle lobule of pronotal disc; humeral angles with a short yellow-ochre band; hemelytral membrane amber, veins slightly obscured; connexival segments pale brown to orange-red with posterior margin pale yellow; abdominal terga pale orange-red. *Ventral coloration:* Head bright brown-orange to red, punctures and rugosities black: rostral segments I to III dark orange hazel, IV somewhat paler; thorax and abdomen bright brown to orange hazel, some scattered ochre spots on abdominal sterna III to IV; prosternum, mesosternum, metasternum and sternum VII dark orange with extensive black spots; pleural margins of the abdomen dark orange, posterior margin pale yellow ochre; coxae, trochanters and femora bright orange to red; tibiae pale orange with one pale yellow ring (absent on posterior tibiae); tarsi pale orange. *Measurements:* Head length: 2.12 mm; interocellar space: 0.48 mm; interocular space: 1.04 mm; width across eyes: 1.84 mm; length antennal segments: I, 2.20 mm; II, 2.92 mm; III, 1.88 mm; IV, 2.04 mm. Pronotal length: 2.88 mm; width across frontal angles: 1.72 mm; width across humeral angles: 4.96 mm. Scutellar length: 2.64 mm; width: 2.48 mm. Total body length: 14.70 mm.

Female (paratype).—*Hemelytra:* Macropterous, reaching posterior margin of abdominal segment VIII. *Genital plates:* Relatively short, oblique, with an antero-posterior enlargement; external face entire, feebly convex (Figs. 12–13). *Measurements:* Head length: 2.16 mm; interocellar space: 0.50 mm; interocular space: 1.08 mm; width across eyes: 1.90 mm; length antennal segments: I, 2.20 mm; II, 2.88 mm; III, 1.91 mm; IV, 1.88 mm. Pronotal length: 3.08 mm; width across frontal angles: 1.76 mm; width across humeral angles: 5.20 mm. Scutellar length: 2.45 mm; width: 2.24 mm. Total body length: 15.18 mm.

Diagnosis.—This is a very distinctive species of *Sciophyrus.* It is large and can be recognized by the trifurcated posterior border of the male genitalia capsule, with the lateral arms large, robust and apically bifurcate and the central arm short and bifid (Figs. 6, 7). In addition the genital plates of the female are relatively short, with an antero-posterior enlargement and with the external face entire and feebly convex (Figs. 12, 13). The non-emarginate and obliquely straight antero-lateral border of the pronotum, as well as the frontal angles produced as large and conical teeth, are characteristic of *S. trifurcatus.*

Variation.—The following variation in the general coloration of the body is present in the type series: head to totally black, tibiae anterior and middle with or without pale yellow ring, connexival segments and pleural margins of the abdomen pale yellow or pale brown to orange red and with the posterior margin unicolorous or with a pale yellow contrast area.

Etymology.—The taxon name is based on the trifurcated posterior border of the male genital capsule.

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